CA4ONHBLW76
81576

HAMILTON PUBLIC LIBRARY
NOV 02 1981
GOVERNMENT DOCUMENTS

# A SUBMISSION RESPECTING THE DEVELOPMENT OF A MAJOR HISTORICAL COMPLEX AND VISITOR ATTRACTION

BY

## THE HAMILTON AND SCOURGE FOUNDATION

---

HAMILTON SCOURGE PROJECT

City Hall
71 Main Street West
Hamilton, Ontario
L8N 3T4

Telephone : (416)527-0241

[redacted]
Executive Director
[redacted]

(III) August 1981

CONTENT :


| | |
|---|---|
| EXECUTIVE SUMMARY | 1 |
| HISTORICAL PERSPECTIVE | 8 |
| THE VALUE OF HAMILTON AND SCOURGE | 16 |
| DECK PLAN OF HAMILTON | 19 |
| DIMENSIONS OF HAMILTON AND SCOURGE | 20 |
| THE SEARCH FOR HAMILTON AND SCOURGE | 21 |
| PARTICIPATING ORGANIZATIONS | 25 |
| POTENTIAL FOR THE PROJECT | 30 |
| FINANCIAL FORECASTS | 36 |
| THE SITE | 40 |
| THE MUSEUM COMPLEX | 43 |
| TIMING FOR THE PROJECT | 51 |
| FIELD WORK PROGRAMS | 54 |
| 1982 FIELD WORK SCHEDULE | 62 |
| FIELD WORK BUDGET | 63 |
| ORGANIZATION | 66 |

# EXECUTIVE SUMMARY

This submission outlines one of the most exciting -- and significant -- underwater archaeological and historical projects ever undertaken in Ontario, in Canada, or indeed in the world. It is a project which on completion will result in a heritage complex, study centre and visitor attraction ranking with any similar facility anywhere in the world.

The Hamilton and Scourge Foundation proposes to raise two unique War of 1812 armed schooners from Lake Ontario where they have lain, untouched and in virtually perfect condition, for almost 170 years.

The ships, named HAMILTON and SCOURGE, were part of an American squadron sailing against British naval forces on the lake. Top heavy with the weight of formidable cannon and carronade, they foundered in a violent squall during the early hours of August 8, 1813.

Since that time, they have remained in 91 metres (300 feet) of water, about 9.6 kilometres (six miles) off Port Dalhousie. The depth, combined with a gentle current and near freezing temperatures, have kept them in virtually perfect condition: masts standing, intact with arms, stores, tools, personal belongings and the remains of crew members. Fifty-three men died with the ships, the single largest loss of life in naval action during the war.

HAMILTON and SCOURGE, the only known examples of ships of the War of 1812 era anywhere in the world, are historically without equal: indeed not even the lines and plans of such vessels have survived.

More than that, they are the only known examples of a class of fast, weatherly craft which once commanded the lakes and evolved to dominate the world's trade routes. While their significance makes their world appeal enormous, their historical importance to both Canada and the United States is inestimable: rare artifacts of a war which did much to forge the identity and character of two young nations.

Both ships were fully provisioned shortly before their foundering, and the contents of the hulls are an unprecedented treasure-trove of period artifacts.

The Foundation proposes to house the ships, preserved in an environment much like that in which they presently rest, in a major museum complex of the War of 1812 on the shores of Lake Ontario at Hamilton. They will form the nucleus of an international visitor attraction second to none.

Studies by the Foundation indicate the museum will make a contribution not only to our history and heritage, but a significant economic contribution to the Regions of Halton, Hamilton-Wentworth, Niagara and to the Province.

The Foundation conservatively estimates that the complex will, every year, attract visitors from around the world in numbers equal to the entire population of the City of Hamilton.

The museum -- a theme park and study centre -- will generate sufficient revenue to meet all capital and operating costs and show a profit for future stages of development of the facility itself and other historic and related development in the area.

The estimated total cost to raise HAMILTON and SCOURGE and exhibit them in a world-class facility is $9,250,000;

-- The Foundation, through borrowing guaranteed by the City of Hamilton, and through participation by the private sector, proposes to meet 48 per cent of the costs: $4,550,000;

-- The Province of Ontario, through its BILD initiatives, has been asked to fund the recovery phase of the project -- 26 per cent of the project's total costs -- $2,530,000 in three phases over a period of three years;

-- The Federal government is being asked to provide the final 26 per cent of total costs: $2,500,000. Federal funds will be dedicated to assisting with the design, engineering and construction of the tanks and related equipment necessary to conserve and display the ships and the artifacts recovered from them.

Apart from the dramatic cultural implications of the project, the economic benefits are commanding:

-- During the recovery and construction phases, the net benefit to the area will be more than $23,000.000;

-- The Federal and Provincial governments will recover their investments, through increased tax revenues, in fewer than ten years, and realize on-going revenues indefinitely;

-- The Foundation will retire its capital debt in 20 years or less;

-- The complex will meet all its operating costs and other financial obligations and still provide an annual operating surplus for continuing development of the site and to assist in development of other historical and related facilities in the area;

-- The on-going economic benefit to the Region will be more than $5,000,000 annually.

In conclusion, it is fair and reasonable to say that considered as a cultural venture and as an economic proposition, the appeal of the project is enormous. The Foundation believes it is a logical matter of pressing priority for joint development by the private sector, the City, Regional, Provincial and the Federal governments.

# THE HISTORICAL PERSPECTIVE

The War of 1812 between Britain and the United States of America was a dramatic consequence of Britain's confrontation diplomacy, trade policies and the long war with the major nations of Europe -- particularly France.

In 1812, Britain was a fortress against expected invasion by the French and her allies. In spite of that, the country was able, through the Royal Navy, to carry the war to the coastlines of her adversaries and to their colonies.

In fact, Britain's real walls and battlements were the ships-of-the-line, the frigates and smaller ships blockading enemy ports from the Baltic to the Mediterranean and the Caribbean.

America, just decades into independence from Britain, was an uneasy ally of the French. As such, the young nation was subjected to the blockade of France and Britain's arrogant rules of warfare which allowed the Royal Navy to board American ships, impress American seamen and, in some rare cases, seize cargos.

In addition to these irritations, American merchants were angry at being barred from lucrative markets by British laws requiring goods to be carried in British bottoms.

Against this background, a declaration of war by the Americans was hardly surprising. Its immediate effect was to strain Britain's resources and stretch her thin wall of ships even further: containing the Americans in their ports and helping protect Canada, a colony now at war with her southern neighbour.

Canada was becoming an increasingly valuable property -- not the least because, with the Baltic largely closed to Great Britain, Canada supplied the tall white pine which became masts and spars for the ships on which Britain depended for survival.

From the American point of view the inevitable war could end Britain's arrogant depredations on American ships as well as changing British trade policy. And, there was the lure of Canada: a political and economic lure since the days of the Revolution when American forces struck north along the length of Lake Champlain to Montreal.

If water routes were tactical options during the Revolution, they were of strategic necessity during the War of 1812.

With only an elementary network of rough roads, attack by land was difficult and dangerous. But the Great Lakes constituted a soft underbelly across which the Americans could move quickly and at will -- given ships and supremacy of the Inland Seas.

As a result, the naval War of 1812 spanned the Great Lakes: American fleets were established on the Upper Lakes under Commodore James Sinclair (where he was opposed by one pressed, civilian schooner under the command of a Royal Navy lieutenant); under Captain Oliver Hazard Perry on Lake Erie and under Commodore Isaac Chauncey on Lake Ontario.

On the Upper Lakes, Sinclair destroyed the single schooner but lost his fleet later to that same schooner's crew, ending the American naval threat to the western communities. On Erie, Perry fought and won a fleet action, but the Americans largely failed to capitalize on his victory.

On Lake Ontario, American ships had tested the defences at Kingston, burned York and had taken Fort George. By August 1813 Chauncey had gathered a squadron of 13 ships and was manoeuvering against a smaller British force near the mouth of the Niagara River. The classic fleet action promised to settle the question of supremacy on the lake and, hopefully, give the advantage to the Americans.

At dusk on August 7, Chauncey and the British, under Commodore James Yeo, hove-to their squadrons for the night, a typical tactic of that time. In company with Chauncey were HAMILTON and SCOURGE.

Both these ships were well-known and had served the thriving peace-time trade on the lakes. They had been carefully built to a mold finding favour in North America: the best of this breed were built at Baltimore and called clipper schooners. They were rigged fore and aft with one or two square top sails on the foremast. Requiring only a small crew, they were fast and weatherly.

SCOURGE was the former Canadian merchantman LORD NELSON, owned by James and William Crooks of Niagara-on-the-Lake, and built by James McFarlane. She was taken by the Americans and pressed into naval service two weeks before war was declared.

HAMILTON was the former merchant schooner DIANA of Oswego, N. Y., purchased into American service in the summer of 1812.

In the normal course of events both ships were valued assets of the American fleet although -- equipped with heavy arms for which they were never designed -- HAMILTON and SCOURGE were crank and unstable in all but moderate weather.

But obviously the risk in compromising their seagoing qualities seemed justified. Adopting a known Royal Navy tactic, the ships were armed with carronades: a type of cannon throwing an extremely heavy ball at low velocity over short ranges. Their destructive power was formidable. Admiral Lord Cochrane, the Earl of Dundonald, once manoeuvered a similar Royal Navy schooner, similarly armed, alongside a 32-gun French frigate. Athough his crew numbered 40 to the frigate's 350, he pounded the Frenchman into submission with his carronades.

The main armament on HAMILTON was a truly monsterous 32 pounder. Set amidships, the gun was rigged to a swivel and could fire on most points of the compass regardless of the ship's heading. About half the beam of HAMILTON, the gun, charged with six pounds of powder, could hurl its 32-pound ball more than two miles: from Toronto's waterfront, for example, the gun could have put a ball at the feet of the Speaker of the House at Queen's Park -- had Ontario, the Speaker or the Legislature existed in HAMILTON'S era.

Such a gun was more typically carried on three and four deck ships--of-the-line, hundreds the time the size of the schooners. Nelson's VICTORY, for example, was so armed. The unhappy French at Trafalgar reported that Nelson's 32-pounders hurled balls through one side of their ships -- and out the other.

Thus HAMILTON and SCOURGE hove-to on the night of August 7: top-heavy, crank and perhaps with hulls weakened by firing the big guns -- a common occurance on small ships so heavily armed.

Early in the morning of the 8th, the squardon was struck by violent squalls which scattered the fleet. Both HAMILTON and SCOURGE were set on their beam ends, foundered and sank. A survivor of the tragedy, Ned Meyers, described the event to a former shipmate-turned-author, James Fenimore Cooper, who recorded it in his History of the American Navy, published in 1813:

> "The flashes of lightning were incessant and nearly blinded me. Our decks seemed on fire and yet I could see nothing. I heard no hail, no order, no call; but the schooner was filled with the shrieks and cries of the men to leeward who were lying jammed under the guns, boxes, shot and other heavy things that had gone down as the vessel fell over."

The conditions that night were such that Chauncey did not learn of his loss until dawn, four hours later.

And what was the loss?

Certainly his force was depleted. Tactically he had lost the firepower of two valuable ships which might well have swung the balance in a fleet action: ships with flexible options, ships with both long and short range weapons, ships small enough to manoeuver under sweeps when larger ships lay becalmed and helpless.

The loss doubtless loomed large in the mind of Chauncey, a man considered by history to be lacking in aggressive drive and the determination to close with the enemy and fight. Shortly after, he lost two more ships to British. The balance of power thus shifted heavily to Yeo, the determined British commander. It remains that there was no fleet action such as Perry fought on Lake Erie: no strategic victory for the American forces.

# THE VALUE OF HAMILTON AND SCOURGE

In 1815 James and William Crooks took action against the government of the United States, claiming $5,000 for their schooner LORD NELSON, improperly seized, renamed SCOURGE, and pressed into the US Navy. The claim was not settled until 1928.

Today, of course, SCOURGE is worth much more. In fact, she and her sister ship are priceless.

They are, firstly, unique artifacts of an era when sail on the Great Lakes was the lifeblood of transport and trade.

They are, secondly, unique artifacts of a war which did much to shape the character of two nations.

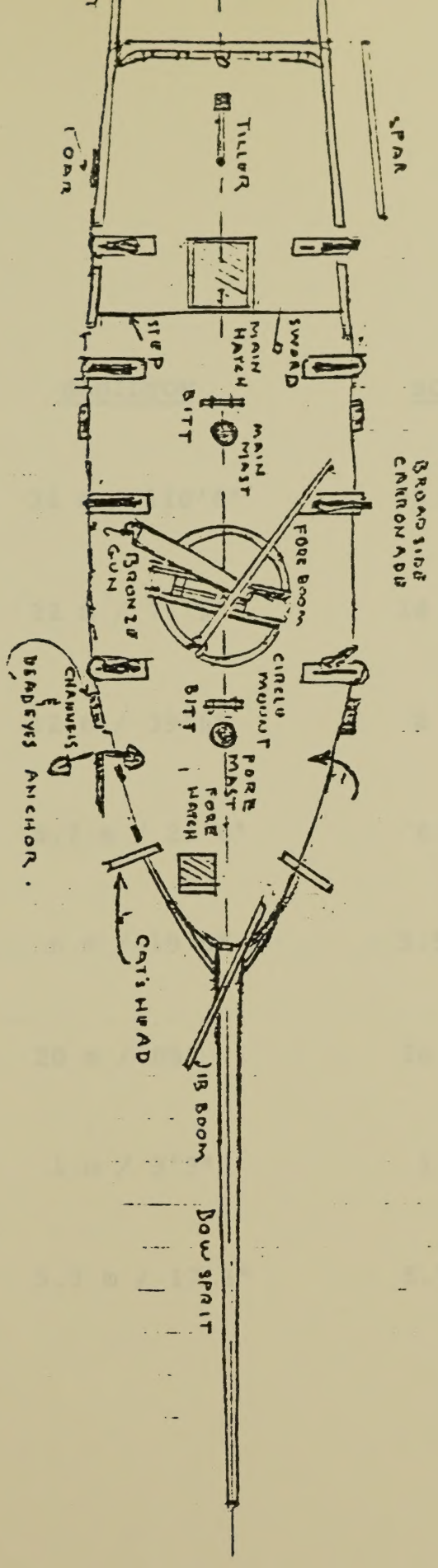
Thirdly, their hulls contain a larger store of military and personal belongings than have ever been discovered before.

And they are, fourthly, the only known intact vessels of their kind. Chappelle, the late renown naval historian of the Smithsonian Institute notes in his books "The Baltimore Clipper" and "The History of the American Sailing Navy" that not even the lines of such ships have survived.

The recovery of HAMILTON and SCOURGE will fill a gap in world naval history -- and an important one. Chappelle traces the development of the fast and weatherly, fore-and-aft rigged ships from the Caribbean to Bermuda and from Bermuda to the eastern seaboard of North America. United States -- notably Baltimore. There were other influences on the evolution of such ships, notably European, but international authority Basil Greenhill of the Britain's National Maritime Museum, notes that the schooner was a North American invention.

HAMILTON and SCOURGE were an important part of the evolution of such ships: Baltimore schooners, schooner clippers and the extreme clippers which dominated world trade for decades.

Seen in this context, they are at least as important as any ships now preserved anywhere in the world.




U.S.S. HAMILTON.
DECK PLAN.

SHIPS' DIMENSIONS

| | HAMILTON | SCOURGE |
|---|---|---|
| Length overall | 34 m / 110'6" | 26 m / 84'5" |
| Length on deck | 22 m / 71'5" | 18 m / 53' |
| Length of bowsprit | 12 m / 39'6" | 8 m / 26'4" |
| Beam (amidships) | 6.7 m / 21'8" | 6 m / 19'6" |
| Beam (stern) | 6 m / 19'5" | 5.5 m / 17'9" |
| Mast height | 20 m / 65' | 20 m / 65' |
| Railing height | 1 m / 3'3" | 1 m / 3'3" |
| Deck height | 5.3 m / 17'2" | 5.5 m / 17'9" |

# THE SEARCH FOR HAMILTON AND SCOURGE

Time will likely show that the most difficult part of the Hamilton and Scourge project has already been completed: finding the vessels on the floor of Lake Ontario. It was a search that stretched from dusty archives to the heaving decks of ships, from documents written almost two centuries ago, to the Jet Propulsion Laboratories of the National Space and Aeronautics Administration in Pasadena, California.

Directed by Dr. Dan Nelson, a St. Catharines diver, dentist and a research associate of the Royal Ontario Museum, the search began a decade ago. Examining hundreds of old documents, Dr. Nelson -- who is the Recovery Project Manager for the Foundation -- was able to define a 'most probable' area of the lake where the ships might be located.

With the assistance of the Canada Centre for Inland Waters the areas were searched magnetically and acoustically through 1973. On the last day of the last season's program the ships were discovered during the final sweep just to the west of the 'most probable' area.

Further acoustic, TV and photographic probes in 1975 and 1977 confirmed the identity and revealed the excellent structural condition of both vessels.

Luis Marden, former chief of the Foreign Staff and a feature writer on underwater subjects for National Geographic Magazine said that:

> "In the history of underwater archaeology, a search of such magnitude, technical excellence and precision has never been mounted."

He added :

> "I can truly say that nowhere have I seen nor heard of an underwater search conducted so scientifically and so elegantly ... nor have I observed anything to equal the state of preservation of your ships. It was astonishing for me to see, on the videotape, the condition of the ships' timbers, which look as though they had been cut and fitted months rather than almost two centuries ago.
>
> "I certainly do not know of anything remotely like your ships in historical value ... these are truly unique, relating to the history of Canada, Britain and the United States."

Jacques Cousteau visited Lake Ontario in 1980 and photographed HAMILTON from a two-man submersible. He described the ships as totally intact, beautifully crafted, and he added :

> "Without reservation, I fully endorse any scientific programs which will lead to the eventual recovery, conservation and display of these last remaining marine artifacts from a crucial point in North American history."

# PARTICIPATING ORGANIZATIONS

The Cousteau Society and the National Geographic Society are among the organizations which have supported and continue to support the Foundation.

The National Geographic is supporting the project in several ways, including a major article with photographs and artwork planned to follow completion of the Foundation's first major Field Work Program on the ships.

The two organizations are typical of a growing number of provincial, national and international agencies which have joined to make the project possible to date. Taken in time, materials and equipment, money and expertise, their involvement can be valued at about $1,000,000.

Individuals ranging from company presidents to scientists, archaeologists, historians and others have also contributed immeasurably.

The agencies supporting the project include :

Provincial Government :

Ministry of Culture and Recreation

Royal Ontario Museum

Great Lakes Institute (University of Toronto)

Ontario Provincial Police

Federal Government :

Canadian Centre for Inland Waters

Canadian Hydrographic Service

Canadian Coast Guard

Department of National Defence

Canadian Conservation Institute

National Museums of Canada

Canadian War Museum

Parks Canada

National Historic Sites and Monuments Branch

Department of External Affairs

National Film Board of Canada

St. Lawrence Seaway Authority

Institutions of the United States :

The US Navy

National Geographic Society

Others include:

The Cousteau Society

International Submarine Engineering Inc.

Huntex '70 Inc.

Computing Devices of Canada Inc.

Fathom Oceanology Ltd.

Barringer Research Inc.

The Hamilton Harbour Commission

McKeil Workboats Ltd.

Upper Lakes Shipping

The Dominion Marine Association

Hydrospace Marine Engineering Ltd.

The Hamilton Harbour Commission

The Hamilton Foundation

The Hamilton and Scourge Society

Dofasco

Gulf Oil

Imperial Oil

The Hamilton Spectator (Southam Incorporated)

Leitch Transport Ltd.

Provincial Marine (1812)

Bermingham Construction Ltd.

# POTENTIAL OF THE PROJECT

Quite apart from the major historical significance of HAMILTON and SCOURGE the viability of the entire project rests on a sound economic base and the Foundation is convinced that the project is an excellent business opportunity.

1. The nature of the museum and its content is dramatic, exciting and appealing.

2. There are no technical nor other reasons why the ships should not be recovered

3. The site is excellently placed.

   The Hamilton Region Conservation Authority has made available an appealing 10-acre parcel in Confederation Park, immediately adjacent to the Queen Elizabeth Way, with access through two major exchanges. The dramatic museum buildings will actually be within view of the Province's major tourist route. And it is worth noting that Confederation Park already attracts more than 100,000 people annually.

4. The Ministry of Transport and Communications estimates that 21,000,000 people pass the site each year; six million of them are Americans, travelling between the border and the major tourist market of Toronto. The museum will draw from this flow, without diminishing the number of visitors to Toronto, or south-going Canadian visitors to the Niagara area. In fact, brisk and integrated marketing of the site will help increase traffic flow to the other destinations.

   Based on this flow, current tourist data from Hamilton and Confederation Park, and the experience of historic sites elsewhere in the Province, the Foundation's projection of 300,000 visitors annually is conservative indeed.

5. Of the expected 300,000 visitors to the site, the Foundation anticipates the majority will be American: a reflection of the special appeal of the museum, to the adjacent major American market and the present tourist trend in Hamilton: even today, slightly more than 50 percent of visitors come from south of the border. This is an important consideration in terms of revenue flow into the Province.

The anticipated number of visitors will more than triple the number of summer tourists to Hamilton -- in fact their number will equal the population of Hamilton itself.

6. The museum will, in effect, give Hamilton a major international visitor attraction for the first time. Its performance will enhance other facilities recently constructed, including for example, the new Convention Centre. Co-operation between the Centre and the Foundation is already well established. It is one of the organizations with which the Foundation will integrate marketing plans.

7. The Foundation expects the museum complex to act as a catalyst for other ancillary development in accommodation, visitor attractions and services. As a matter of policy, it will seek to assist such development wherever possible.

Within this context it is worth noting the experience of the City of Baltimore, MD.

The City had the imagination and foresight to construct a sailing replica of a Baltimore Clipper -- the ship which made the City famous in the last century, and a ship related in evolution to both HAMILTON and SCOURGE.

The clipper, PRIDE OF BALTIMORE, is seldom seen in the City, however; it is usually at sea on a busy schedule of 'flag' visits to other American cities, to the Caribbean and Europe.

In spite of that, the construction of the PRIDE engendered a dynamic new civic spirit which directly lead to the revitilizaion of the City's downtown waterfront area, including visitor facilities, accommodation, a mall and convention centre.

It is also worth mentioning VASA, a 16th century Swedish warship which sank on its maiden voyage and lay on the bottom for more than 300 years.

Although partly destroyed by 16th century divers seeking to salvage its guns, VASA was raised and today is the largest tourist attraction in the Baltic and Scandinavian countries. Last year it attracted 400,000 visitors. Although much larger than HAMILTON and SCOURGE, it is not nearly in so perfect a state of preservation.

VASA lacks the historical importance of HAMILTON and SCOURGE. As well, the Foundation believes that easy access to tourist markets combined by a better visitor experience, will mean that the Canadian complex will, within a few years of opening, attract more visitors than does VASA today.

7. Taken all-in-all, the Foundation predicts that given adequate funding, particularly in the initial stages, the museum complex can play a dynamic role in Hamilton, making a major economic contribution, helping offset the city and area's almost total reliance on its industrial base.

# FINANCIAL FORECASTS

| | | $ | $ | $ |
|---|---|---|---|---|
| 1. Investment cost | | | | |
| Recovery of ships: | 1982 | 460,000 | | |
| | 1983 | 805,000 | | |
| | 1984 | 1,265,000 | 2,530,000 | |
| Museum construction: 72,000 $Ft^2$ X 90.00 | | 6,480,000 | 6,480,000 | |
| Administration: | 1982 | 80,000 | | |
| | 1983 | 80,000 | | |
| | 1984 | 80,000 | 240,000 | 9,250,000 |
| 2, Source of funding: | | | | |
| Foundation debt funding: | | | 2,550,000 | |
| Private sector: grantsfrom industry, foundations, private memberships, individuals: | | | 2,000,000 | |
| Provincial funding: | | | 2,200,000 | |
| Federal funding: | | | 2,500,000 | 9,250,000 |
| 3. Funding by percentages | | | | |
| Foundation (debt and fund raising): | | | 48 % | |
| Province of Ontario: | | | 26 % | |
| Federal Government: | | | 26 % | |

4. Statement of projected annual operating revenue:

| | $ | $ | $ |
|---|---|---|---|
| Memberships and donations: | | 35,000 | |
| Site Revenues (admissions and sales) 300,000 X 5.75: | | 1,720,000 | 1,755,000 |
| *Conservation authority revenue (Parking and additional related expenditures); | | 200,000 | |

5. Statement of projected annual expense:

| | | |
|---|---|---|
| Salaries: | 240,000 | |
| Administration: | 87,000 | |
| Marketing: | 250,000 | |
| Building maintenance: | 95,000 | |
| Debt reduction fund: | 600,000 | |
| Development fund: | 175,000 | |
| Sales expense, salary and stock: | 195,000 | 1,692,000 |
| Operating surplus: | | 113,000 |

* Excluded from Foundation revenue statement.

6. Economic benefit to the Region

| | $ | $ |
|---|---|---|
| Recovery phase (50 per cent of recovery costs 1,265,000 X 2.9): | 3,668,500 | |
| Museum construction (including administration: 6,720,000 X 2.9): | 19,488,000 | 23,156,500 |
| Site revenues (1,720,000 X 2.9) annually: | 4,988,000 | |
| Conservation Authority Revenue, annually (200,000 X 2.9): | 580,500 | 5,568,500 |

# THE SITE

The site selected for the Hamilton and Scourge / War of 1812 museum complex is one of the most beautiful recreation areas in the Region: Confederation Park, one of the facilities of the Hamilton Region Conservation Authority.

Appropriately, the Park curves for two miles along the shore of Lake Ontario, the battleground of HAMILTON and SCOURGE. It is lightly treed and rolling, fronting on sandy beaches. As noted elsewhere, the Park is bordered by the Queen Elizabeth Way, just south of the Burlington Skyway and about 15 minutes by car from Hamilton City Hall. Services are already in place, and there are parking facilities within easy walking distance of the museum site.

The specific site is dramatic: a treed, 10-acre parcel. If such land were available on the open market, it would be worth more than $1,250,000. One of the geological features of the Park is the presence of ancient, landlocked riverbeds of fresh water. The main museum buildings will be surrounded on three sides by such a riverbed, providing intriguing architectural possibilties, as well as water surface for floating displays.

The Master Plan for development of the site is presently in work by the Foundation with its architectural and engineering consultants, and with the close and cordial co-operation of the Conservation Authority. Such co-operation will ensure the orderly development of the site and appropriate integration with other Park activities

# THE MUSEUM COMPLEX

Preliminary design studies for the museum buildings have already been undertaken, based on present knowledge of HAMILTON and SCOURGE, conservation and other critical requirements.

It is worth stressing that the care and conservation of the ships is the central criteria for building and systems design. Around these considerations are other criteria: traffic flow, the total visitor experience, flexible design for changing function in future, and for future expansion. The plans take into consideration the requirements of on-going archaeology, the need to maximize revenue and minimize operating and maintenance expense.

In general, the master plan calls for completion of a single stage of the museum by the summer of 1982. On an interim basis this building will be used as a mini-museum and centre of project activities. On completion, the building will be an intregal part of the complex.

The Great Hall, which will contain the ships, will be completed in time to receive them -- 1984.

Other sections, including administration and orientation areas, theatres, conservation and archaeological facilities, interpretive museum, ships' chandlery (sales) and restaurant will be completed by the target opening date, June 1985.

Throughout each stage of the development, the complex will be open to visitors, as appropriate.

Details of the final design of buildings and systems may change as more is learned about the ships and their conservation,, particularly as a result of the first Field Work Program, in 1982.

In the main, however, the major parameters are known and such changes should effect the complex only in its details. Consequently, costs estimated now should be accurate. By and large the single special requirement is in engineering and constructing tanks and related systems to contain the ships in a water environment. In other respects, design, construction and costs should be typical of any museum plant intended to handle large groups of visitors, and requiring display areas, environmental control, security, special lighting, and the like.

In general, the museum complex will be a series of buildings connected by bridges spanning the ancient river beds. It will be about 72,000 square feet.

Commanding, dramatic architecture -- particularly of the Great Hall -- will recall the days of sail on the Great Lakes, the War of 1812, and will capitalize on the site and its sweeping panoramic view of Lake Ontario.

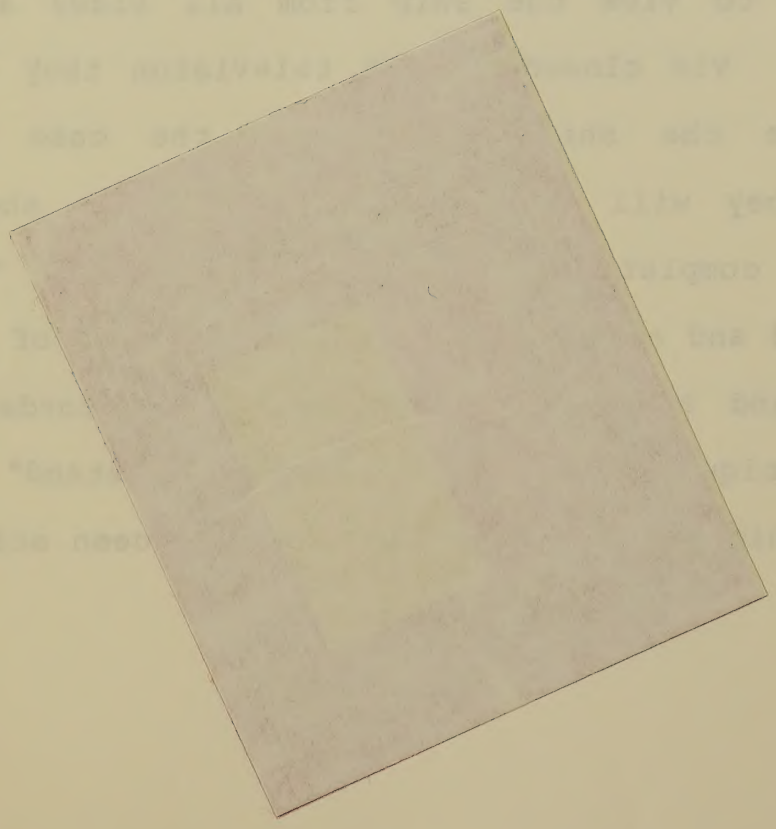
Visitors will arrive at an orientation centre, a short walk from parking facilties. The centre will contain theme display material, cloak and washrooms. Visitors will be staged into one of two small theatres to see a film placing the War of 1812 and the naval action in an international historical context and concluding with the raising of HAMILTON and SCOURGE. Production of the film is currently being planned by Cedar Films of Toronto, and its principal partner, the National Film Board.

As the film ends, the screen will rise into the ceiling and visitors will see the ships, immersed in tanks of lake water, dramatically lighted.

The sides of the tanks will be largely composed of curved, eight-foot high, eight-foot deep, full length, acrylic viewing ports. Visitors will be able to walk into these ports, in effect descending 300 feet below the surface of Lake Ontario.

One of the tanks will contain a ship, preserved exactly as it now sits on the lake bottom, canted 18 degrees to port, its decks littered with artifacts and rigging, as it was left 170 years ago. The second tank will contain a vessel sitting upright on its keel. It can be fully rigged with masts, cordage and sails -- all supported from above so that only minimum and allowable stress is transmitted to the hull.

Visitors will be able to view the ship from all sides and from acrylic walkways above. Via closed-circuit television they will be able to 'tour' inside the ships' hulls. In the case of the fully-rigged vessel, they will be standing a few feet above the submerged hull: a hull complete with arms and fittings in "general quarters" order. Around and above them will be the jumble of shrouds amd stays, buntlines and sheets, halyards and other cordage, the masts and sails -- a unique opportunity to actually "stand" on the deck of a War of 1812 ship, something no one has ever been able to do in the living past.



These paragraphs describe the ships as they will ultimately exist. In the first few years of exhibit, however, they will be in development stages as exciting as the final stage. During development visitors will be able to watch divers cleaning the hulls, taking off the ships' lines, removing artifacts from the hold. Later, they will see riggers working at the tophamper.

Visitors leaving the Great Hall, will cross a closed bridge to enter a conservation and archaeological area.

Here artifacts removed from the ships will be studied, measured, photographed and conserved: activity likely to take several years. The conservation area will be designed to be gradually converted into an interpretive museum centering on the recovered artifacts. Its theme will include the development of sail on the Lakes and the War of 1812 in an international context. The displays will be state-of-the-art in design to actively involve visitors.

In designing the site and anticipating visitor requirements as well as financial needs, a sales area becomes important. The Foundation feels that a quality sales outlet -- the Ships' Chandlery -- will generate a large part of total income.

As visitors leave the conservation/display areas, they will be directed through this sales area, one of high quality with a full range of made-in-Canada historic reproductions, appropriate books, photographs, paintings and the like. The Chandlery will also sell items of interest to contemporary sailors.

From the sales area, visitors have the option of crossing yet another bridge to a snack bar and restaurant built out over the lake. The Foundation anticipates considerable revenue from this area as well.

Visitors leave the building via a bridge over one of the riverbeds. A path will lead through a park area, back to the orientation centre where visitors can reclaim checked coats and personal property. This path will be protected from inclement weather and will afford another excellent opportunity to enhance the visitor experience.

It will be tastefully landscaped and offer park-like resting places. The area can also be used for outdoor displays: a naval gun emplacement, for example, where drill and firing might be possible. A flag park is another idea. The river itself could be used to display full-scale replicas of the small types of gun-boats used in the War of 1812. These boats may be built on-site -- yet another dimension of visitor experience -- as part of future stages of development.

One special case deserves mention.

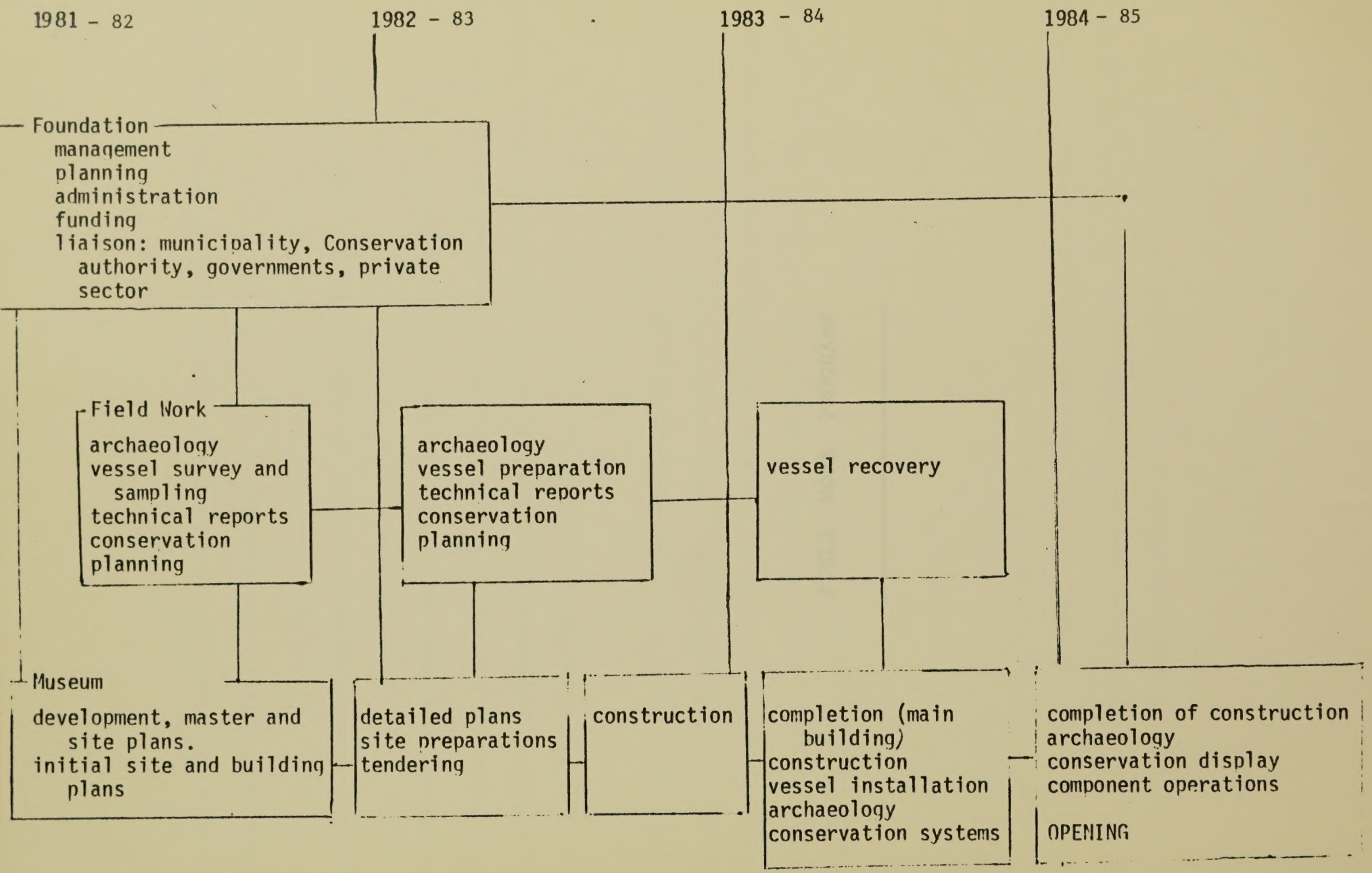
By contract with the Government of the United States, the Foundation has agreed that it will treat the recovered remains of the crews of HAMILTON and SCOURGE with dignity and respect, returning them to the U.S. Navy for burial in the national cemetary at Arlington, Va.

In future months the Foundation will propose that an area adjacent to the park walk be consecrated and deeded in perpetuity to the United States. Here the crews can be buried, near their ships and under the American flag of the War of 1812.

Bearing in mind the limitations of theme, finances and the need for integration with existing and future park development, further development of the museum complex seems logical. Without limiting the possibilities, these developments could include more visitor acitivities, marina/park/ceremony areas; the construction of a full-sized sailing replica of one of the ships and so on.

# TIMING FOR THE PROJECT

The attached flow chart outlines the Foundation's primary tasks in the next three years. Each task noted, of course, involves at least several considerations and many are inter-related, involving reporting and modifying processes.


1981 - 82
1982 - 83
1983 - 84
1984 - 85
Foundation
management
planning
administration
funding
liaison: municipality, Conservation authority, governments, private sector
Field Work
archaeology
vessel survey and sampling
technical reports
conservation
planning
archaeology
vessel preparation
technical reports
conservation
planning
vessel recovery
Museum
development, master and site plans.
initial site and building plans
detailed plans
site preparations
tendering
construction
completion (main building)
construction
vessel installation
archaeology
conservation systems
completion of construction
archaeology
conservation display
component operations
OPENING

# FIELD WORK PROGRAMS

Field Work programs ultimately aimed at recovery of both HAMILTON and SCOURGE, fall into three stages.

The field work program for 1982 has been defined in complete detail.

The programs for 1983 and 1984 will be largely dependent on the first year's findings. They are, however, defined in terms of the major tasks and the Foundation has been able to realistically estimate the costs involved, in 1982 dollars.

The prime contractor for the work is Hydrospace Marine Engineering of St. John's, Newfoundland. Hydrospace was one of five marine contractors asked to bid on a detailed work program provided by the Foundation. It was chosen unanimously by a jury of marine and archaeological experts.

Field work: 1982:

Hydrospace -- working under the Foundation's recovery project manager, Dr. Dan Nelson, and its archaeologist, Mr. John Cassavoy -- will mobilize divers, technicians and equipment at Hamilton.

A 95-foot workboat will be four-point moored over the HAMILTON. The primary submersible is MANTIS, a manned, ADS system equipped with sophisticated navigation, photographic and real-time video equipment. It is also equipped with sophisticated manipulator arms of great strength, able to duplicate the movements of the human hand.

MANTIS is backed up with a bell-type, bounce diving system equipped for a rescue role. Neither free nor hard-hat divers will be used during the first field work program.

HAMILTON will be fitted with a fine-tolerance locator beacon so that all MANTIS movements will be related to a detailed grid. Powered and serviced by umbilical to the surface ship, MANTIS will photograph the entire hull, deck and masts, in both still and video, with a running commentary by the pilot/diver.

Based on a sophisticated sonar portrait of the area, computer-corrected by the Jet Propulsion Lab under provincial and federal funding, MANTIS will then survey the area around HAMILTON, with particular attention to scattered artifacts and bottom features.

The final task will be to take core samples from the hull and soil and sediment samples around the ships, under the direction of the Foundation's conservation and geophysical specialists.

The procedure will then be repeated on SCOURGE.

Twenty-five program days -- including 17 days at sea -- have been allocated to the Field Work, based on a 12-hour, seven-day week, including 17 days at sea. Long and careful negotiation and discussion with Hydrospace has resulted in an exhaustive cost-effective survey with a high degree of assurance that it can be completed within the time and budget allowed.

## Conservation Considerations

Conservation requirements are important enough that they deserve some additional comment.

Core and spar samples from the hulls will be placed in wet pressure containers for transport to the Canadian Conservation Institute (a division of the National Museum of Canada) at Ottawa.

During earlier meetings and seminars a conservation program was designed. As well, agreement was reached with the Institute, providing for a qualified conservation specialist, at the Foundation's expense. The Institute, a world-renowned organization, agreed to provide programs, space, equipment and supervision by senior staff. The conservation laboratories of Parks Canada will also support the project.

The aim of the conservation team will be to determine the strength of the ships so as to decide on optimum recovery techniques. As well, they will decide the best treatment for conservation of both ships and artifacts after their recovery. Without such intense investigation, the Foundation considers that it would be irresponsible to contemplate recovery of the ships.

The special requirements of the conservation program will be reflected in Field Work programs two and three, as required.

1983 Field Work

Detailed planning of the 1983 field schedule will follow the technical reports of the 1982 work group.

In the main, however, the budget allows for further anticipated archaeological work and study, additional three-dimensional mapping, and the recovery of any additional hull and bottom samples, which may be required.

Assuming that the conservation and other studies confirm the practicability of recovery and the existing time schedule, the project archaeologist will direct the removal of artifacts from the deck, as well as the ships' rigging. Artifacts from the bottom surrounding HAMILTON and SCOURGE will also be collected. These artifacts may be left on the bottom, stored in suitable containers, depending on the availability of shore facilities for study and storage.

The 1983 schedule will also include initial preparations for raising the ships, including an RCV survey of the interior of the hulls, with particular attention to ballast and artifacts.

This preliminary recover work may also include the hydraulic excavation of tunnels under the ships and the placement of cribwork around them.

1984 Field Work

Given the completion and confirmation of further necessary studies, HAMILTON and SCOURGE will be raised in 1984. While there is no reason they have to be recovered in the same year, there are economic, technical and other considerations which suggest it.

Final methods will be based on the first two years of field work. At the moment, the Foundation believes that the ships will be supported with crib work begun during the 1983 field work period. The tunnels dug under the hulls will accommodate support straps securing the hulls -- now estimated to be at least 65 per cent of original strength -- to the cribwork.

Surface ships will lift the hulls, estimated at about 100 tons displacement, free of rigging and deck artifacts such as the heavy carronades and cannons. The ships will not be brought to the surface; suspended between the surface ships, they will be transported underwater to the museum complex, 20 miles away.

At the site they will be moved into individual tanks for further archaeological work and display.

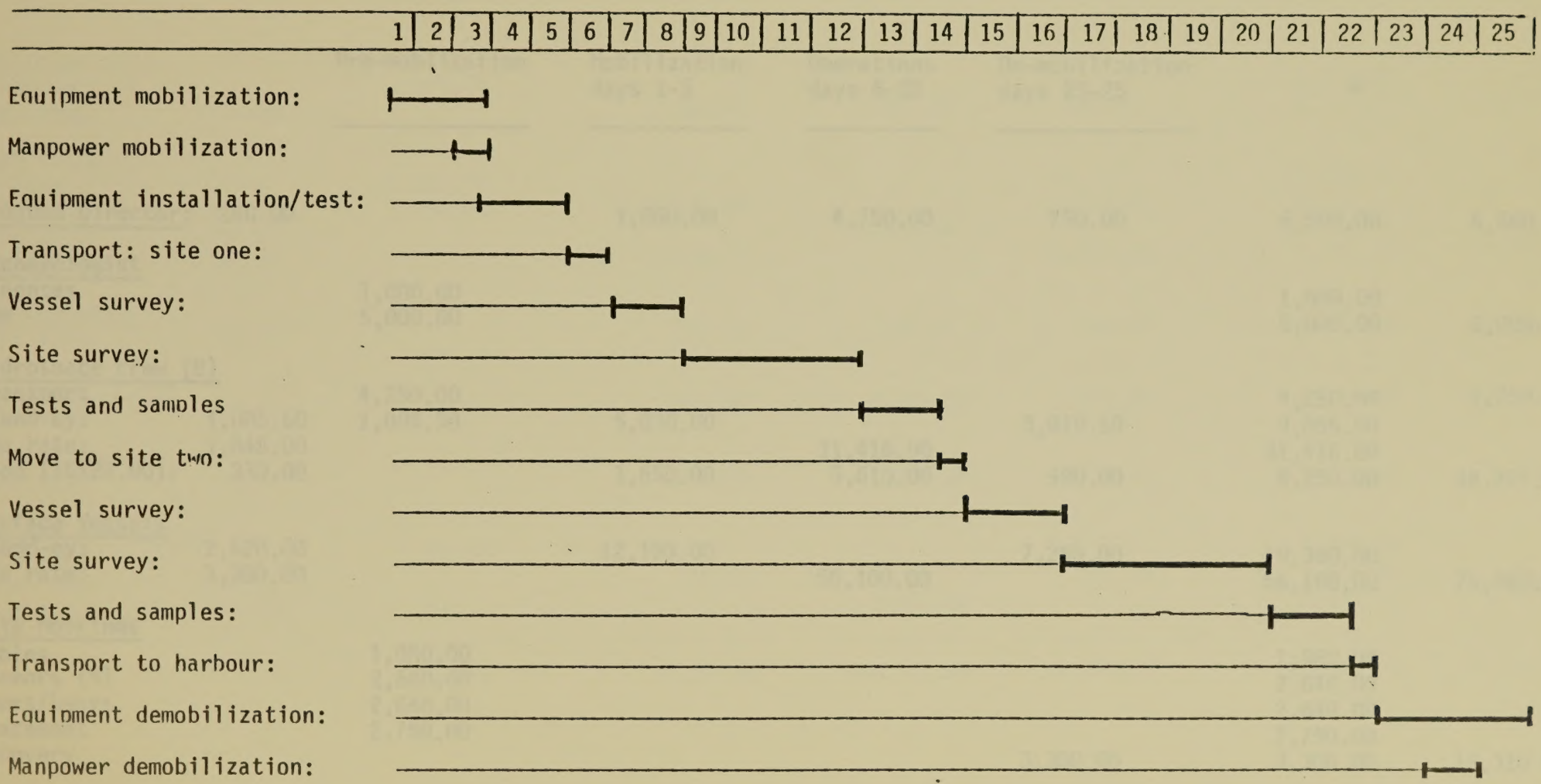
There are several alternative means of affecting the critical transfer from lake to tank and the method chosen will depend on the conservation studies. If the studies show the ships can, with complete safety to hulls and contents, be exposed to air for a short time, the transfer process will be simplified.

If, however, the ships must remain totally immersed, more complex -- and expensive -- means of transfer into the tanks will have to be employed.

The conservation studies will also dictate the water environment within the tanks. At the moment, conservation experts judge that cold, filtered lake water, without additives, will be sufficient to guaranteee the condition of the ships.

In the meantime, of course, the Foundation will continue to monitor world-wide conservation and preservation technology so that any advances, including dry-conservation, can be reflected in the museum complex planning and engineering.

Hamilton & Scourge
Field Schedule
Summer / 1981



Hamilton & Scourge
budget
Recovery Phase One / summer 1981

| | | Pre-moblization | Mobilization days 1-5 | Operations days 6-22 | De-mobilization days 23-25 | | |
|---|---|---|---|---|---|---|---|
| Project Director: | 250.00 | | 1,000.00 | 4,750.00 | 750.00 | 6,500.00 | 6,500.00 |
| Archaeologist | | | | | | | |
| expenses | | 1,000.00 | | | | 1,000.00 | |
| fee | | 5,000.00 | | | | 5,000.00 | 6,000.00 |
| Hydrospace crew (8) | | | | | | | |
| transport | | 4,250.00 | | | | 4,250.00 | 4,250.00 |
| stand-by: | 1,006.50 | 1,006.50 | 5,030.00 | | 3,019.50 | 9,056.00 | |
| sea rate: | 1,848.00 | | | 31,416.00 | | 31,416.00 | |
| food (15X22.00): | 330.00 | | 1,650.00 | 5,610.00 | 990.00 | 8,250.00 | 48,722.00 |
| Surface Vessels | | | | | | | |
| stand-by: | 2,420.00 | | 12,100.00 | | 7,260.00 | 19,360.00 | |
| sea rate: | 3,300.00 | | | 56,100.00 | | 56,100.00 | 75,460.00 |
| Site Moorings | | | | | | | |
| cables | | 1,980.00 | | | | 1,980.00 | |
| anchors (5) | | 2,640.00 | | | | 2,640.00 | |
| moors/buoys | | 2,640.00 | | | | 2,640.00 | |
| placement | | 2,750.00 | | | | 2,750.00 | |
| recovery | | | | | 3,300.00 | 3,300.00 | 13,310.00 |

| | | pre-mobilization | mobilization days 1-5 | operations days 6-22 | de-mobilization days 23-25 | | |
|---|---|---|---|---|---|---|---|
| Position system | | | | | | | |
| transport | | 1,100.00 | | | | 1,100.00 | |
| per diem: | 330.00 | | 1,650.00 | 5,610.00 | 990.00 | 8,250.00 | 9,350.00 |
| ADS (Mantis) | | | | | | | |
| transport | | 28,000.00 | | | | 28,000.00 | |
| stand-by: | 3,900.00 | 3,900.00 | 19,500.00 | | 11,700.00 | 35,100.00 | |
| sea rate: | 4,400.00 | | | 74,800.00 | | 74,800.00 | |
| technician: | 360.00 | | 1,800.00 | | 1,080.00 | 2,880.00 | 140,780.00 |
| AV recording | | | | | | | |
| per diem: | 55.00 | | 275.00 | 935.00 | 165.00 | 1,375.00 | 1,375.00 |
| Lighting system | | | | | | | |
| per diem | 275.00 | | 1,375.00 | 4,675.00 | 825.00 | 6,875.00 | 6,875.00 |
| Camera system | | | | | | | |
| per diem | 110.00 | | 550.00 | 1,870.00 | 330.00 | 2,750.00 | 2,750.00 |
| Bounce dive system | | | | | | | |
| transport | | 3,300.00 | | | | 3,300.00 | |
| stand-by: | 55.00 | | 275.00 | | 165.00 | 440.00 | |
| sea rate: | 165.00 | | | 2,805.00 | | 2,805.00 | 6,545.00 |
| | | 57,566.50 | 45,205.00 | 188.571.00 | 30,574.50 | 321,916.00 | 321,916.00 |

| | | |
|---|---|---|
| Balance brought forward | | 321,916.00 |
| Additional costs | | |
| Gas (ADS-divers) | | 4,730.00 |
| Video tapes (190 hours) | | 4,180.00 |
| Film & processing | | 1,500.00 |
| ADS rigging | | 550.00 |
| Technical report | | 1,550.00 |
| Preparatory documents | | 1,100.00 |
| Preparatory management allowance | | 3,850.00 |
| Contingencies: customs<br>XY plotter<br>time code generator<br>communications<br>shuttle boat<br>travel | | 18,750.00 |
| Weather contingency allowance<br>(two sea days @ 11,092.41) | | 22,184.82 |
| Canadian Conservation Institute:<br>test and conservation<br>programme, salary and<br>related expenses only: | | 21,000.00 |
| | | 401,310.82 |
| Adjustment for 1981 | $ | 460,000.00 |

# ORGANIZATION

On April 17, 1979, an agreement signed by the Secretary of the U.S. Navy, transferred title, custody and rights of HAMILTON and SCOURGE to the Royal Ontario Museum.

On May 1, 1980, the ROM assigned title and rights to the ships to the City of Hamilton.

The Hamilton - Scourge Foundation was incorporated as a charitable corporation by Letters' Patent of the Province of Ontario (Ontario Corporation Number 467582).

The City of Hamilton has assigned project responsibility to the Foundation through legal agreement and Act 1979 S.O. 1979, Chapter 126.

FDE/0200E

HAMILTON PUBLIC LIBRARY
3 2022 21336407 4